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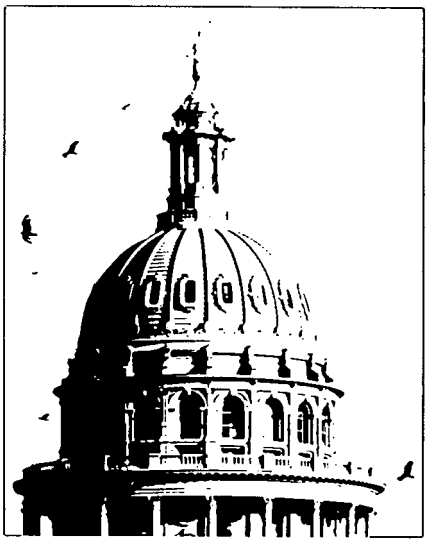
Texas House of Representatives



Interim Report to the 68th Texas Legislature

Committee on Natural Resources

REPORT

OF THE

TEXAS HOUSE OF REPRESENTATIVES

NATURAL RESOURCES COMMITTEE

A REPORT TO THE

HOUSE OF REPRESENTATIVES

68TH TEXAS LEGISLATURE

TOM CRADDICK

CHAIRMAN

STAFF

WILLIAM S. ROSE

TOM CRADDICK
3108 STANOLIND
MIDLAND, TEXAS 79701
P. O. BOX 2910
AUSTIN, TEXAS 78767

HOUSE OF REPRESENTATIVES

AUSTIN

COMMITTEES:
CHAIRMAN
NATURAL RESOURCES
MEMBER
ENERGY RESOURCES

October 12, 1982

The Honorable Bill Clayton
Speaker of the House of Representatives

Members, Texas House of Representatives
68th Texas Legislature

Dear Mr. Speaker and Members:

Transmitted herewith is the Report of the Natural Resources Committee which is to be submitted to the 68th Texas Legislature.

Sincerely,

Tom Craddick,
Chairman

The following Report has been approved by the members of the Natural Resources Committee listed below:

J. W. ("Buck") Buchanan
Jerry Clark
Jerry Cockerham
Gerald Geistweidt
James E. ("Pete") Laney
L. P. ("Pete") Patterson
Kae Patrick
Charles ("Chip") Staniswalis

Chairman Tom Craddick approved all parts of the report except the "Study of Fresh Water Contamination by Oil and Gas Operations."

Representative Ted Lyon approved all parts of the report except the "Navigation District Study."

Representative Jim McWilliams abstained from voting pending review of additional data.

REPORT

OF THE

TEXAS HOUSE OF REPRESENTATIVES

NATURAL RESOURCES COMMITTEE

INTRODUCTION

At the commencement of the 67th Legislature, the Honorable Bill Clayton, Speaker of the Texas House of Representatives, appointed the House Committee on Natural Resources.

The Committee membership, as appointed, included eleven members of the House of Representatives as follows: Tom Craddick of Midland, Chairman; Gerald Geistweidt of Mason, Vice Chairman; James E. ("Pete") Laney of Hale Center, Vice Chairman of Budget and Oversight; J. W. ("Buck") Buchanan of Dumas, Jerry Cockerham of Monahans, Ted Lyon of Mesquite, Jim McWilliams of Marshall, Kae Patrick of San Antonio, L. P. ("Pete") Patterson of Brookston, and Charles ("Chip") Staniswalis of Amarillo.

The Committee, during the interim, was assigned several charges by the Speaker. In order to undertake the charges effectively and efficiently, Chairman Craddick appointed the following subcommittees to study the charges shown below:

I. Coastal Subcommittee:

Chairman: Tom Craddick

Members: Jerry Clark
Kae Patrick

Charge: Study the need to modify the authority of Navigation Districts to permit the sale of or installment sale of publicly financed facilities to private entities.

II. Budget and Oversight Subcommittee:

Chairman: James E. ("Pete") Laney

Members: Jim McWilliams
L. P. ("Pete") Patterson

Charge: Study the impact of future federal budgetary cuts on the Texas Department of Water Resources.

Review the necessity of the activities of, and the efficacy of, the Texas Coastal and Marine Council.

III. Water Subcommittee

Chairman: Gerald Geistweidt

Members: J. W. ("Buck") Buchanan
Jerry Cockerham
Ted Lyon
Chip Staniswalis
Foster Whaley*

Charge: Study the potential problems associated with having more than one river authority per basin and the advisability of creating one river authority to encompass the entirety of each basin.

Study the problem of fresh water contamination as a result of the injection and disposal of salt water in oil and gas operations.

All subcommittees have completed their hearings and investigations and have issued their respective reports. All subcommittee reports have been adopted and approved by the Natural Resources Committee to be incorporated as the following final report for the entire Committee. The Committee findings and recommendations are found in the report.

Finally, the Committee wishes to extend its appreciation to the Texas Department of Water Resources, the Texas Railroad

*Representative Whaley served as an ex officio member of this subcommittee at the request of Speaker Clayton.

Commission, the Texas Coastal and Marine Council, and the citizens who testified at our hearings for their time and complete cooperation with the Committee.

TABLE OF CONTENTS

NAVIGATION DISTRICT STUDY

The Committee on Natural Resources was charged with examining the need to modify the authority of Navigation Districts to permit the sale of or installment sale of publicly financed facilities to private entities.

Navigation districts are generally charged with providing the facilities necessary to operate a port, including wharves and docks, grain elevators and bunkering facilities, lightering and towing facilities.

Chapters 61, 62 and 63 of the Texas Water Code provide for the creation of general law navigation districts. Chapter 61 provides for the creation of navigation districts under Article 3, Section 52 of the Texas Constitution. Chapter 62 provides for the creation of navigation districts under Article 16, Section 59 of the Texas Constitution. Chapter 63 provides for self-liquidating navigation districts. Additionally, some navigation districts are created pursuant to special legislation and not pursuant to the provisions of general law. Chapter 60 provides certain powers for almost all navigation districts.

Included within Chapter 60 is Section 60.038 (providing for the sale or lease of surplus land) and 60.101 which provides as follows:

> Any district may acquire land and purchase, construct, enlarge, extend, repair, maintain, operate, or develop:
> (1) wharves and docks;
> (2) warehouses, grain elevators, and bunkering facilities;
> (3) belt railroads;
> (4) floating plants and facilities;
> (5) lightering and towing facilities;
> (6) everything appurtenant to these facilities; and

(7) all other facilities or aids incidental to or useful in the operation or development of the district's ports and waterways or in aid of navigation and commerce in the ports and on the waterways.

Additionally, Section 60.120 authorizes a district to enter into leases, without specifying whether the district can be both a lessor and lessee. No provision in law currently exists authorizing districts to sell their facilities, other than surplus facilities.

During the Regular Session of the 66th Legislature in 1979, Senate Bill 401 by Longoria was introduced and would have given all navigation districts in addition to the powers of 60.101 the authority to sell or lease the facilities delineated in the above section. S. B. 401 was not enacted in 1979. In 1981, three bills, similar to S.B. 401 but local in nature, were introduced. H.B. 291, H.B. 374, and H.B. 1851 were virtually identical in their provisions except that H.B. 291 applied to the Brownsville Navigation District of Cameron County, H.B. 374 applied to the Nueces Navigation District No. 1 in Nueces County and H.B. 1851 applied to the Arroyo Colorado Navigation District of Cameron and Willacy Counties. These bills would have authorized the three districts to 1) acquire port-related railroads and bridges and cargo handling facilities, and 2) sell, including by installment sale, or lease (as lessor or lessee) all of the facilities mentioned in Section 60.101 together with the port-related railroads and bridges and cargo handling facilities. None of the three bills became law. H.B.'s 291 and 374 failed to be enacted by the Legislature and H.B. 1851, although it passed both Houses of the Legislature, was vetoed by the Governor.

The federal government appears increasingly less inclined to assist in the financing of port facilities. Accordingly, two options generally exist for financing port facilities. First, navigation districts are authorized to issue tax bonds, revenue bonds and conbination tax and revenue bonds (Section 60.331). Second, port facilities may be financed pursuant to the Development Corporation Act of 1979.

Under the Development Corporation Act of 1979, a political subdivision (including a navigation district) may authorize and approve the creation of one or more corporations for the purposes of promoting and developing industrial and manufacturing enterprises. The corporation is authorized to issue bonds (industrial development bonds) in the corporation's name which are obligations only of the corporation and not of the political subdivision. The bonds are payable solely from funds provided for their payment and from the revenues of the project for which the bonds were authorized. The bonds may be secured by the project financed together with a pledge of the revenues and receipts. Under the Development Corporation Act of 1979, the corporation is authorized to acquire projects and to lease or sell the projects, including sale by installment payments. At the present time, the Internal Revenue Service is recognizing industrial development bonds as being exempt only if the total issue is not in excess of ten million dollars.

Many of the projects that are contemplated by navigation districts and that are needed by navigation districts are substantially in excess of ten million dollars. The Committee is aware of several potential projects that may cost at least one hundred million dollars.

At the present time, the development of our state to a great extent is dependent upon the ability of our ports to accommodate commerce. The port business is a competitive business, and in this respect Texas is competing with other states to have the most modern facilities available in order to attract commerce. Two factors that are now requiring significant expansion of our ports are 1) the importation on large tankers of substantial amounts of crude oil to our country and 2) the increase in trade with Mexico. These factors, among others, are requiring our ports to deepen their channels and improve and enlarge their facilities.

With respect to the bills that were introduced in the 67th Legislative Session, the Committee was concerned with 1) the broadness of the language describing the type of projects that could be financed and sold with bonds of the navigation district, 2) the possibility that if the bills were enacted the Commissioners of the navigation district would become responsible for lending huge sums of money with the prospect that some contracts for unworthy projects would be entered into with certain individuals or entities, as acts of favoritism and 3) a project's failure, resulting in a drain on a district's revenues and foreclosure on a district's facilities not associated with the project in order to satisfy the project's indebtedness, thereby threatening the financial stability of the district. In response to the Committee's second concern, it has been stated that the Commissioners are duly elected officials and would have to answer to the public if any wrongdoing occurred. The Committee however believes that this is not a sufficient safeguard against financing unworthy projects

that could jeopardize district finances, and that many times the unworthy project would fail long after the Commissioners had ceased to serve in their official capacities.

Recommendation

Accordingly, the Committee recommends that general law be amended and navigation districts should be empowered to 1) acquire, purchase, construct, enlarge, extend, repair, maintain, operate, or develop port-related railroads and bridges and cargo handling facilities and 2) lease, as lessee or lessor, sell, or sell by installments, the following facilities: (1) wharves and docks, (2) warehouses, grain elevators, other storage facilities and bunkering facilities, (3) port-related railroads and bridges, (4) floating plants and facilities, (5) lightering, cargo handling and towing facilities, (6) everything appurtenant to these facilities, (7) all other facilities or aids incidental or useful in the operation or development of the district's ports and waterways or in aid of navigation in the ports and on the waterways.

The law should be further amended to provide that if the acquisition or construction of the above facilities is financed through the sale of district bonds or other indebtedness of the district, that indebtedness could be retired only by the use of bond sale proceeds and income and revenues from the project created by the indebtedness. Additionally, if the bonds are to be secured, they may be secured only by the project facilities and revenues and no other facilities or revenues of the district. Exhibit A hereto is the bill recommended for passage by the

Committee.

The above recommendation is made in the belief that if the payment for the indebtedness used to finance the project is restricted to the project's revenues and proceeds and can be secured only by project facilities and revenues, the finances of the navigation district will not be jeopardized in the event of project failure; further, the burden and risk of determining whether the project is financially feasible will fall upon the project lenders or potential purchasers of the bonds used to finance the project, not the district itself or its taxpayers or residents.

EXHIBIT "A"

Section 60.101 of the Texas Water Code shall be amended to read as follows:

Section 60.101 Acquisition and Maintenance of Port Facilities

(a) Any district may acquire land or interests in land by purchase, lease or otherwise, may convey the land or interest in the land by lease, installment sale, or otherwise; and may purchase, construct, enlarge, extend, repair, maintain, operate, [~~or~~] develop, sell by installment sale or otherwise, and lease as lessor or as lessee:

(1) wharves and docks;

(2) warehouses, grain elevators, other storage facilities and bunkering facilities;

(3) port-related [~~belt~~] railroads and bridges;

(4) floating plants and facilities;

(5) lightering, cargo-handling, and towing facilities;

(6) everything appurtenant to these facilities; and

(7) all other facilities or aids incidental to or useful in the operation or development of the district's ports and waterways or in aid of navigation and navigation-related commerce in the ports and on the waterways.

(b) To the extent that the district incurs indebtedness (bonded or otherwise) for purposes of financing the above facilities which in turn are sold by installment sale or otherwise, said indebtedness, principal and interest, may be

paid only from the loan (or bond sale) proceeds and revenues generated from the project financed by the indebtedness, and security for payment of the principal of and interest on said indebtedness shall be limited to a pledge of the project's revenues and the project's facilities including enlargements and additions thereafter made.

SECTION 2. The importance of this legislation and the crowded condition of the calendars in both houses create an emergency and an imperative public necessity that the constitutional rule requiring bills to be read on three several days in each house be suspended, and this rule is hereby suspended, and that this Act take effect and be in force from and after its passage, and it is so enacted.

BUDGET AND OVERSIGHT STUDY

The Committee on Natural Resources was charged with (1) studying the impact of future federal budgetary cuts on the Texas Department of Water Resources and (2) review of the necessity of the functions of the Texas Coastal and Marine Council.

Texas Department of Water Resources

Federal Budgetary Cuts

At the point in time when this report is being submitted, it appears that the Reagan Administration is proposing cutbacks in federal funding in a number of areas that would impact the Texas Department of Water Resources.

For the past 15 years, the state has made a concentrated effort to improve the water quality of its streams and has attempted to be in compliance with the federal Water Pollution Control Act of 1972 and its recent amendments known as the Clean Water Act. Included in the federal proposals are cutbacks in the Section 106 (Clean Water Act) grants for pollution control programs together with cutbacks in the Section 201 (Clean Water Act) grants for publicly-owned treatment works.

In the past, the federal government through Section 106 has provided approximately 35% of the funds expended under water quality management programs. In order to be eligible for those funds, the state must provide an appropriation and then maintain a level of services. Since 1974, federal grants have been

relatively consistent as has the state's share, but now for Fiscal Year 1983, a twenty percent reduction is being proposed by the Administration in the Section 106 program. This would result in approximately a $380,000 reduction in funds for the State of Texas for a program that helps finance the issuance of point source permits, water quality monitoring and enforcement of water quality standards.

Section 201 funds are construction grant funds. Under the current program, the federal government provides up to 75% of the monies needed for local political subdivisions to construct needed sewage treatment facilities. The Reagan Administration has proposed that the grant be reduced from 75% to 55% with some additional reduction in the items that are eligible to be financed through the program, such as reserve capacity for growth. To the extent that the federal government does not fund the Section 201 Construction Grant Program, a local political subdivision or the state would have to pick up the additional cost of these facilities. Because of the growth of our state's population, it seems unlikely that the state would be able to cut back significantly on the number of facilities to be constructed in the future.

In addition to proposed cuts in Section 106 and Section 201 funding, cuts in funding of certain federal agencies and elimination of certain programs are now being proposed by the Reagan Administration. The United States Bureau of Reclamation ("Bureau") and the U. S. Army Corps of Engineers ("Corps") are the federal agencies primarily involved in the financing and construction of

federal water projects involving state and local sponsors (local political subdivisions). In the past, political subdivisions serving as local sponsors have been able to receive water supplies and hydro-power by signing long-term contracts to repay portions of the cost allocated to conservation and hydro-power; the effect has been that the state and local sponsors have not had to furnish a down payment but have been able to finance their shares of these projects. Now, the Bureau and the Corps are indicating that in order to get new starts on federal water projects, the state and local sponsors may have to furnish up-front financing for new projects. This proposed policy change could affect at least eleven reservoir projects for water development purposes now scheduled for construction between 1985 and 2005. Additionally, 17 projects scheduled for construction for the period 1985 through 2005 for purposes of hurricane and flood protection could also be affected by this change in policy.

In the past, Farmers Home Administration has provided ten to sixteen million dollars annually for rural water system grants and loans while the Economic Development Administration has funded local public works at widely-varying levels. At the present time, the Reagan Administration is proposing to eliminate funds in these programs used for water and sewer facilities as well as Housing and Urban Development grants for water and sewer facilities.

Funding for small watershed projects by the Soil Conservation Service would be severely curtailed under the current Reagan proposal. In addition, planning funds provided by

the Water Resources Council or the Office of Water Research and Technology have been eliminated in the Administration's proposal for 1983. In fact, a reduction of about two-thirds in federal funding from all sources for water research is expected.

In the past, the State has participated in the High Plains experiment (HIPLEX), which was a weather modification project sponsored and funded through the Bureau of Reclamation's Office of Atmospheric Sciences. This program has been dormant since 1980 and it does not appear that the federal government will revive funding for the program.

The Committee is well aware at the time of this report that the proposed federal cutbacks have not been implemented and are subject to change and many of the proposals are subject to Congressional action. Still, if the proposals are implemented, they will have significant impact on the Texas Department of Water Resources and our state.

Coastal and Marine Council

During the Regular Session of the 67th Legislature, the Committee became concerned with the efficacy of the Texas Coastal and Marine Council. The Council was created in 1971 by the 62nd Legislature "to cooperate and assist in the comprehensive assessment and planning for coastal resources management and other marine-related affairs affecting this state." Article 4413(38) T.R.C.S. The Council serves as an advisory body to cooperate with and assist the Legislature, state, federal agencies, and other political subdivisions with respect to coastal resources management and

marine-related affairs. Currently, the Council consists of 16 members appointed by the Governor, Lt. Governor, and Speaker of the House, serving six-year staggered terms with the membership representing the Legislature, commerce and industry, higher education, and the public at large. The Council is served by five full-time and one part-time staff persons now officing in the Reagan Building. Approximately $500,000 was appropriated for Fiscal Year 82-83 for the Council with 69% of that amount budgeted for administration, 20% for resource development and management and 10% for the fishing reef system.

Current activities of the Council include the following:

1. an interim study of factors affecting the Texas Bay Shrimp Industry with recommendations to be made on the issuance of bay and bait shrimp boat licenses and suggested improvements in the industry's economic development and resource management;

2. development of a joint state-industry Marine Navigation Risk Management Program for the Texas coast;

3. evaluation of and recommendations for stimulating the mariculture/aquaculture industry in Texas;

4. assessment of and recommendations for Texas' marine fishing industry;

5. coordination of construction plans for two artificial fishing reefs;

6. initiation of a comprehensive shore erosion management program;

7. development of a plan with the oil and gas industry to provide for industry-financed placement of obsolete production structures at Liberty Ship artificial fishing reef sites.

Additionally, the Council publishes biennially Texas Coastal Legislation and on a weekly basis Clips/Briefs displaying

news articles affecting coastal subjects.

The Committee is aware of the importance that coastal commerce has played in the State of Texas and believes that the coast will play an ever-increasing role in Texas commerce. Accordingly, the Committee believes that it is important that the Texas Coastal and Marine Council be a vital and effective organization and believes that it has been such an organization during Fiscal Year 1982.

RIVER AUTHORITY STUDY

The Committee on Natural Resources received an interim assignment to study the potential problems associated with having more than one river authority per basin and the advisability of creating one river authority to emcompass the entirety of each basin.

There are 23 river basins in the State, with many of these basins having more than one river authority or political subdivision with river authority-like powers.

While many conservation and reclamation districts have been created pursuant to the general law statutes now contained in the Texas Water Code, all river authorities within the State have been created by special acts of the Legislature. These acts vary in their provisions, and accordingly river authorities have various powers, depending on the specific need of their region. Many of the districts have been created to supply water, waste water treatment, and other water-related services to their respective areas of the State.

Under Section 12.081 of the Texas Water Code, the Department of Water Resources has a continuing right of supervision over these districts, but as a practical matter, this supervision has been limited to reviewing and insuring the fiscal responsibility of districts. The Department does not consider the aforesaid section to confer planning coordination powers on the Department. Additionally, Section 12.081 of the Texas Water Code exempts from Department supervision any river authority encompassing ten

counties or more. The Department does have some influence on these districts by virtue of its authority to issue waste discharge permits, underground injection control permits, industrial solid waste disposal permits, weather modification permits, as well as other permits, and to delegate local sponsors of federal projects. These Department functions do not pertain just to river authorities but to all local and regional governments involved in water resources projects within the State.

With respect to most of the State, it appears, from the testimony presented, that intra-basin conservation and reclamation districts (including river authorities) are cooperating with each other in both planning and administration matters. The representatives of the political subdivisions that appeared before the Committee were unanimous in their views that not only was it unnecessary to combine political subdivisions with river authority powers in order to coordinate better water and waste water functions throughout the basin, but that such a proposal would be counter-productive, because of the various obligations for existing districts that would have to be assumed by areas that had not initially approved the original indebtedness (bonds and contract obligations). Additionally, if districts were merged, it is possible that covenants for bondholders would be violated, especially when the issuing district may have pledged to the bondholders that the district would maintain its corporate existence as long as the bonds remained outstanding. Attempted unification of intra-basin districts might result in bondholders taking legal action

to stop these changes, alleging that the changes impaired the ability to retire the bonds. Further, the attempt to merge districts with various obligations and different structures could well lead to extensive and exceptionally expensive litigation to resolve all issues created by the attempted merger.

It has also been pointed out that the disruption that would result from reorganization, if reorganizations were to take place, might very well delay planning and implementation of needed water projects.

The Committee took particular interest in one basin, the Neches Basin. During the 67th Regular Session (1981), Senate Bill 632 by Senator Parker was introduced on behalf of the Lower Neches Valley Authority and referred to the Natural Resources Committee for hearing. Senate Bill 632 would have permitted the Lower Neches Valley Authority to acquire, enlarge and construct facilities outside its district. The bill was vigorously opposed by representatives of the Angelina and Neches River Authority and was not enacted. Additionally, House Concurrent Resolution No. 1 by Haley was introduced and referred to the Committee during the last Regular Session. This resolution would have established a special interim committee to study the feasibility of establishing a river authority for the entire Neches River. The resolution was strongly supported by representatives of the Angelina and Neches River Authority but was not adopted.

It is apparent from the aforementioned legislation that was introduced in the Regular Session occurring in the spring of 1981 that disputes and conflicts then existed between the Angelina and Neches River Authority and the Lower Neches Valley Authority.

Accordingly, representatives of those two politicial subdivisions together with representatives of the Upper Neches River Authority were requested to make presentations on the advisability of forming one river authority for the entire Neches Basin. Representatives of each of the three authorities testified and were unanimous and firm in their opinions that no changes in the structure of those political subdivisions should be made, that it was not necessary for one basin-wide authority to be formed, and that all disputes that may have once existed had been resolved.

Conclusion: It is the opinion of the Committee that no changes need be made at the present time to the structure of political subdivisions having river authority-type powers and no legislation should be introduced to create a basin-wide river authority for any of the river basins of Texas.

STUDY OF FRESH WATER CONTAMINATION BY OIL AND GAS OPERATIONS

The Committee on Natural Resources received an interim charge to study the problem of fresh water contamination as a result of the injection and disposal of salt water in oil and gas operations. This charge was prompted by private citizen complaints primarily arising in West Texas.

Before reviewing the complaints, it is important to understand the general problem confronting our state and the division of authority between state agencies for Texas ground water quality protection and the means authorized and employed for such protection.

AN OVERVIEW OF THE PROBLEM

Ground water is important to our state, especially in West Texas where fresh water is scarce due to minimum rainfall. Accordingly, there is in West Texas a dependence on ground water that with usage has dwindled in supply and threatens to become unavailable in some regions before the year 2000 and in other areas after the turn of the century.

Many of our oil rich lands are also found in West Texas. Oil wells used for production or used for injection or disposal are potential sources of ground water contamination unless they are properly sealed and cased and later plugged when not used. Parafin pits and salt water disposal pits used in production operations can be a collecting place for oil, drilling, and salt water wastes and, if allowed to overflow, or not properly insulated from porous ground or improperly closed can be another source of ground water pollution. Accordingly, the production of one of

this state's valuable resources (oil) can threaten another valuable resource (ground water).

Contamination of ground water may occur many years (and sometimes several decades) after the contaminants infiltrate the ground. Ground water has an extremely slow rate of movement. By the time ground water pollution is discovered, it is difficult and many times impossible to identify the source of contamination, because of man-made, geologic and hydrologic changes that have occurred between the dates of contamination and the discovery of contamination. Sometimes the pollution is discovered only after the source of contamination is non-existent; i.e., unlined salt water disposal pits used in the 1940's may no longer exist, but ground water may still be contaminated as a result of them.

Because of its underground location and its slow movement, once ground water becomes contaminated, the contamination may last for many decades, it may be impossible to purify the water, and the use of the water (so scarce in much of our state) is lost, perhaps forever. THEREFORE, IT IS IMPORTANT THAT ALL FEASIBLE STEPS BE TAKEN TO PREVENT CONTAMINATION OF OUR GROUND WATER SUPPLIES.

DIVISION OF AUTHORITY BETWEEN STATE AGENCIES

The Texas Department of Water Resources ("Department" or "TDWR") was created and is empowered by statutes (see Tex. Water Code) and operates under the authority of these statutes as well as its own duly adopted rules. The Texas Railroad Commission ("Commission")

is a state agency created pursuant to Article 10, Section 2 of the Constitution of the State of Texas and empowered through state statutes (most of which are found in the Natural Resources Code), and its own adopted rules.

Generally, the Texas Department of Water Resources is the principal authority for regulating the quality of water in the state (Tex. Water Code Section 26.127). But, by statute, the Texas Railroad Commission has been made "...solely responsible for the control and disposition of waste and the abatement and prevention of pollution of surface and subsurface water resulting from activities associated with the exploration, development, and production of oil or gas or geothermal resources..." (Section 26.131*). Exclusive jurisdiction to regulate and control the disposal of oil field brines and wastes was originally vested in the Railroad Commission by statute in 1965 with the amendment of Article 7621d, T.R.C.S., by the 59th Texas Legislature. Prior to that time, there had been some question as to which agency had jurisdiction over oil and gas wastes when these wastes threatened the quality of water supplies.

In 1981, the 67th Legislature amended Chapter 27, Tex. Water Code, in order to permit the State under the federal Safe Drinking Water Act to receive from the federal government the delegation of enforcement authority over underground injection control activities to prevent the contamination of water supplies. Under Chapter 27 (Section 27.011), the Texas Water Commission is charged with issuing permits for injection wells to dispose of "industrial

*All section references hereafter are to the Texas Water Code, unless otherwise indicated.

and municipal waste." Under Chapter 27 (Section 27.031) and its own Rule 3.9, the Texas Railroad Commission has the authority to issue disposal well permits for purposes of disposing of "oil and gas waste" in non-productive reservoir zones and under its Rule 3.46 to issue "injection well permits" for the injection of fluids in productive reservoir zones.

DEPARTMENT OF WATER RESOURCES ACTIVITIES

In order to prevent duplication of work and expert personnel, cooperation between the Texas Railroad Commission and the Texas Department of Water Resources is required by statute. In this regard, anyone making application to the Railroad Commission for a disposal well permit must submit a letter from the Department of Water Resources "...stating that drilling and using the disposal well and injecting oil and gas waste into subsurface stratum will not endanger the fresh water strata in that area and that the formation or stratum to be used for the disposal is not fresh water sand" (Section 27.033).

As a practical matter, the Texas Department of Water Resources cooperates with the Commission by also providing recommendations for the protection of usable quality ground water and by assisting the Railroad Commission with the investigation of complaints of ground water pollution. Department recommendations are not only for individual drill sites but also for Railroad Commission use when the Commission promulgates area-wide field rules. Department recommendations pertaining to disposal of oil field brine by injection into subsurface formation, are often referred to as

"surface casing recommendations." In these recommendations, the Department identifies the depths of the upper and lower boundaries of usable quality ground water strata. During fiscal year 1981, over 29,000 recommendations pertaining to oil, gas or secondary recovery wells were made by the Department.

Presently, the Department conducts investigations of numerous ground water quality problems relating to oil and gas operations. Since 1965 these investigations have been carried out generally at the specific request of the Railroad Commission.

If, upon receiving a complaint, the Department is uncertain as to whether or not the alleged pollution is oil and gas related, it generally undertakes an investigation of sufficient depth to determine the nature of the problem. If the Department initially determines that the complaint relates to oil and gas activities, the results of the investigation are immediately provided to the Railroad Commission.

RAILROAD COMMISSION ACTIVITIES

The Commission has ten (10) District Offices (each with its own geographical juridiction) and a field staff of about 200 to enforce the applicable laws and the agency's rules.

The Texas Railroad Commission is responsible for establishing casing and cementing requirements for all production, injection and disposal wells related to oil and gas. Additionally, it makes inspections and orders repairs to faulty wells and the plugging of abandoned wells. Wells are to be plugged within 90 days of abandonment (Rule 14*). When the party responsible for

*All Rule references are to the Rules of the Texas Railroad Commission.

abandoned wells cannot be located or is insolvent, state funds are used to plug these abandoned wells.

Class II Wells

All oil and gas-related injection and disposal wells (Class II Wells) must be authorized by permit; none are regulated solely by rule. There are approximately 46,000 of such Class II wells in the State of Texas, each of which has been permitted by the Railroad Commission with specific requirements for casing, cementing, fluid volumes, injection pressures, and other relevant factors pertaining to the particular location. Until recently, rules governing Class II wells for purposes of preventing leaks have lacked specificity for the testing of mechanical integrity. Newly adopted Rules 3.9 and 3.46 (both effective April 1, 1982) require disposal and injection wells to have pressure observation valves on the tubing and each annulus, and to be pressure-tested every five years, unless the aforesaid pressure valves are monitored with results reported to the Texas Railroad Commission annually. Injection pressures and rates are required to be monitored monthly with annual reports to be submitted to the Railroad Commission.

Salt Water Disposal Pits

The Commission estimates that 99% of all fluids produced in Texas are re-injected, limiting the need for pits and ponds for salt water storage and disposal. In 1969, the Commission, by statewide order, now found in Rule 8, prohibited the use of salt water disposal pits unless permission is received from the Director of the Oil and Gas Division or his delegate to place the brine in an impervious pit. Once the use of the pit is completed, the pit

is to be backfilled and compacted. The penalty for failure to abide by Rule 8 can be "pipeline severance;" that is, it becomes unlawful for the operator to produce or carrier to transport oil from the subject operation until subsequently authorized by the Railroad Commission (Rule 23).

The Railroad Commission's responsibility is substantial. Over 750,000 wells have been drilled in Texas, of which over 250,000 are still producing. Recently, the demand for drilling permits has increased; in 1978, 29,570 applications for permits were received while in 1981 over 52,000 permit applications were filed. At this time approximately 46,000 injection and disposal wells are in operation. In 1981, the Railroad Commission staff made over 48,000 inspections. The following enforcement actions (many because of complaints received) have been taken recently by the Commission:

1. in 1981, 37 plugging cases were referred to the Attorney General for enforcement;

2. in 1982, 52 plugging cases were referred to the Attorney General for enforcement;

3. in 1982, 40 drilling mud pits and 42 salt water disposal pits were ordered backfilled; and

4. in 1981, 724 pipeline severances were ordered.

The Railroad Commission further reported that a complaint coordinator has been recently appointed from existing personnel for each District Office to facilitate the thorough investigation of complaints in the future.

COMPLAINTS

During its hearings, the Committee heard a number of general complaints which can be summarized as follows:

1. many open unlined disposal pits are found in West Texas;

2. salt water (brine) disposal pit liners are often ineffective and the pits become a source of pollution;

3. often oil companies improperly close salt water disposal pits resulting in contamination;

4. injection wells unused for long periods of time and with deteriorated casings under our present law may be used again without the necessity for making application to the Texas Railroad Commission for a new permit;

5. oil companies have improperly cased, sealed and/or plugged many wells in West Texas;

6. oil companies use potable fresh water for water flood operations, although potable fresh water is scarce;

7. Texas Railroad Commission employees have falsified some reports of investigations, stating that oil field-related pollution does not exist when in fact it does;

8. at times, Railroad Commission employees will not act to enforce the laws unless pressured by adverse publicity.

Additionally, the Committee heard a number of complaints about particular situations, all of which arose in West Texas. These complaints were pointed not only at particular petroleum companies but also at the Texas Railroad Commission. Much of the Committee's time was involved in hearing and reviewing three complaints (those of Clayton Smith, Jim Batte, and S. Gene Hall) and as a result, they are discussed in detail below.

Clayton Smith Complaint

Complainant: Clayton Smith, Rancher, Bear Canyon Ranch, Iraan, Texas 78744

Nature of Complaint: Clayton Smith has a water well on his property which, for many years, until 1978, produced excellent quality potable water. In 1978, he noted that the quality of water had a marked deterioration. It became undrinkable and eventually ruined his pipes and appliances. A complaint was made to the Texas Railroad Commission which investigated the well and in June, 1978, wrote a letter to Mr. Smith indicating that the chloride content was "too low at this time to conclusively indicate pollution from oil field activity." The Railroad Commission then continued to investigate the matter by sampling wells in the area, during which time the water continued to deteriorate. In its initial investigation the Railroad Commission attempted to identify wells that presented a pollution hazard, but did not attempt to identify the specific well that was leaking salt water or brine and thereby contaminating Mr. Smith's ground water well. Mr. Smith, becoming frustrated, filed a complaint with the Texas Department of Water Resources in July, 1980. The Department of Water Resources (TDWR) investigated the matter and concluded that the source of contamination was oil field related and referred the complaint (again) to the Railroad Commission.*

Mr. Smith was dissatisfied with the efforts of the Texas Railroad Commission because the source of contamination had not

*In written materials submitted to the Committee, Mr. Smith stated that at some point in time he received some conflicting information from the Railroad Commission as to what the Railroad Commission believed the source of contamination was. A field representative stated that it was due to a salt water disposal well that had been dumping salt water directly into the fresh water zone, and accordingly the operation was shut down; the district office subsequently claimed that the disposal operation was not the source of pollution, but that the operation was shut down, because some pipe got into the well that could not be retrieved.

been discovered. In February, 1981, Mr. Smith by letter complained to the Environmental Protection Agency sending a copy to the Governor who requested a response from the Executive Director of the TDWR. Thereafter, investigations were conducted by both the TDWR and the Railroad Commission.

It appears that almost contemporaneously the Texas Railroad Commission and (two months later) the Department of Water Resources completed reports of their investigations and both attempted to convey their reports to Mr. Smith. In a report dated October 16, 1981, the TDWR concluded that a single unplugged oil well (I. N. Anderson well) is probably the source of contamination of Mr. Smith's water well. On August 28, 1981 (prior to the Department's report), a Texas Railroad Commission report was prepared which identified a number of wells as being possible sources of the contamination and recommended plugging of these wells. (The Commission has now sought enforcement of the plugging of these wells through the Attorney General's office). Additionally, the Railroad Commission report identified the best possible site for a new water well for Mr. Smith.

Jim Batte Complaint:

Complainant: Jim Batte, 501 West 50th Street, Odessa, Texas

Nature of Complaint: Mr. Batte was concerned about the pollution of domestic ground water supplies occurring in his neighborhood, which affected his well together with a number of nearby ground water wells. In April of 1980, the Texas Department of Water

Resources conducted an investigation of ground water contamination in Mr. Batte's neighborhood and evidently concluded that the contamination would continue to spread and that little could be done except use alternate sources of water supply. In December of 1980, Mr. Batte reported the ground water contamination to the Texas Railroad Commission and expressed a concern about injection wells in the area and hydrogen sulfide in the area.

A primary concern of Mr. Batte's was the Kerr-McGee Corporation Gist-A-Lease Well No. 13, an injection well. This well is located adjacent to Mr. Batte's residence. The Railroad Commission pressure-tested this well on February 17, 1981, and determined that there was no loss of pressure and no leaks existed in the casing or tubing. The well had been shut in in 1978, and Kerr-McGee Corporation plugged the well after the February 17, 1981 test.

Since 1970, several citizens in the area have complained about ground water contamination. In the past, investigations of these complaints were conducted. As a result of Mr. Batte's complaint the Railroad Commission in June of 1981 conducted its own investigation of wells that had been previously sampled by the Texas Department of Water Resources. In its August 28, 1981 report, the Commission's staff concluded from chemical testing that (1) there was only one source of pollution for the area (2) that this pollution antedated the use of Gist-A-Lease Well No. 13 as a disposal well and therefore Well No. 13 is not the source of pollution and (3) that the source of pollution was the use of unlined pits for salt water disposal on the Gist-A-Lease from 1940 to January 1, 1966, when such pits were lawful. The Commission

further concluded that the contamination will continue to spread, affect a larger area, and that remedial efforts to alter the direction or to remove the salt would not be feasible. Finally, the Commission determined that natural restoration of the aquifer would take many years because of the slow rate of ground water movement.

Mr. Batte in his testimony before the Committee has charged:

(1) the Railroad Commission has become the instrument of the industry it regulates;

(2) the Railroad Commission upon request has refused to test wells in areas of contamination;

(3) the Railroad Commission has refused to test a sample of water taken from the waste disposal pit allegedly not permitted or properly lined;

(4) a Railroad Commission representative did not act to have a gap in a fence around a waste disposal pit closed although the pit posed a hazard to children;

(5) upon covering a waste disposal pit, Kerr-McGee failed to remove the plastic lining or the sediment remaining after evaporation;

(6) the Railroad Commission in a populated area and an area of prior contamination granted a permit for a former oil well (Gist-A-Lease 13) to be used as an injection well without pressure-testing the well. Within four years of the permit's issuing, wells of trailer courts and homes nearest that injection well became contaminated;

(7) a Railroad Commission representative misrepresented to the Railroad Commission that area residents were invited to

witness the testing of a well (Gist-A-13);

(8) the Railroad Commission has hidden the results of pressure tests eventually conducted on Gist-A-13;

(9) inadequate notice is given local and affected citizenry when permits for injection wells are under consideration by the Railroad Commission; and

(10) Railroad Commission personnel refused to test producing wells or injection wells in the Kerr-McGee field (an area of contamination) and told private citizens they would have to pay to have a well tested although the petroleum company area supervisor confirmed that the subject well had leaks at 650 feet.

S. Gene Hall's Complaint:

Complainant: Mr. S. Gene Hall, Pampa, Texas

Nature of Complaint: Mr. Hall owns all or part of four sections of real estate in Gray County. Mr. Hall claims that he has two neighbors (Mr. Sam Haynes and Mr. Jess Sheets) whose fresh ground water supplies have been polluted by Gulf Oil Company's operations and alleges as follows:

1) Gulf Oil Company (which succeeded to Kewanee Oil Company's operations) is polluting Mr. Sam Haynes' ground water by Gulf's water flood operations. On November 10, 1981, in a meeting among Haynes, Haynes' son, Steve Slawson of Gulf, and Texas Railroad Commission employees, Gulf promised it would drill test wells to determine the source of the pollution but as of January 21, 1982, Mr. Hall reports that the test wells were not drilled, allegedly for lack of a water well driller.

(2) With respect to Mr. Hall's other neighbor, Mr. Jess Sheets, Gulf Oil Company placed salt water in unlined pits on Mr. Sheets' property and the Environmental Protection Agency has stated that Sheets' water was polluted by salt water disposal pits; hence, (Mr. Hall concludes) it is Gulf's operations that have polluted Mr. Jess Sheets' ground water.

With respect to Mr. Hall's own property, Gulf has leases on Mr. Hall's property, and Mr. Hall complains that Gulf is threatening to pollute Mr. Hall's ground water (which he admits is not contaminated now) by:

(1) Gulf's pumping large amounts of water from near Mr. Hall's property for a water flooding project, causing the polluted ground water of Mr. Haynes and Mr. Sheets to flow beneath the ground toward the North Fork of the Red River which is on Hall's property. (In this regard, the Environmental Protection Agency wrote Mr. Hall and told him that ground water flow near the North Fork of the Red River is generally toward the river).

(2) Gulf's using old wells for water flood projects (most drilled in the 1940's, but others in 1937 and 1939). Some of these wells have not been used since the 1960's, with 10 of the 13 wells having leaks or possible leaks in the casing. Mr. Hall wrote to the Texas Railroad Commission asking for a hearing to terminate Gulf's injection well permits and by letter of April 30, 1982, this requested hearing was rejected by the Railroad Commission.

(3) Gulf's using other old wells (drilled in 1933, 1945, 1959) for salt water disposal, without equipment to test for leaks and without pressure-testing for leaks.

(4) Gulf's allowing oil to collect in parafin pits on Hall's property and allowing the oil to overflow the pits onto the property. Complaints about the parafin pits were made as early as 1978 by Mr. Hall, and Railroad Commission investigators found in fact that the parafin pits were in violation of Railroad Commission Rule 8. On November 19,

1981, a letter was written to Gulf Oil by the Railroad Commission requiring Gulf to use parafin pits in a manner consistent with statewide Rule No. 8 and detailing how the pits were to be used. An investigation on November 30, 1981, by a Railroad Commission employee showed that the pits were still in violation. Although the pits were cleaned at times after November 30, 1981, by late May and on June 1, 1982, on the West Webb Lease, Gulf was still in violation of the parafin pit rule (because oil was standing in the parafin pit), and additionally oil and salt water could be found on the grounds around the oil-producing operation.

(5) Gulf's allowing salt water to leak from one of Gulf's wells directly onto the ground.

Mr. Hall also complained that when violations occur and are brought to the attention of the Texas Railroad Commission, the Texas Railroad Commission has consistently refused to enforce its rules and regulations.

Finally, the Committee received a complaint that oil operators had allowed oil to spill in Cedar Lake (Gaines County), one of the largest playa lakes in our country, and that when the pollution was reported to the Railroad Commission, the contaminant was initially dismissed by the Railroad Commission representative, without testing, as "iron sulfide" when in fact the contaminant was oil. Subsequently, the Commission admitted the contaminant was oil.

FACT FINDINGS AND CONCLUSIONS

After hearing and reviewing all of the testimony and reviewing all of the applicable laws and rules and regulations, the Committee makes the following fact-findings and conclusions:

1. The Texas Department of Water Resources has performed in an outstanding manner with respect to protection of subsurface water from salt water contamination.

2. For the most part, adequate legal authority exists in the form of statutes and adopted rules for the Texas Railroad Commission to prevent contamination of subsurface water supplies.

3. The Texas Railroad Commission does not have sufficient field personnel to monitor effectively, at all times, all oil operations in order to determine if a threat to fresh water supplies exist; the Texas Railroad Commission does have sufficient personnel to respond promptly to complaints and to enforce the protection of fresh water supplies from oil and gas operations.

4. Rules 3.46 and 3.9 recently adopted by the Texas Railroad Commission and which require pressure-testing of Class II wells at regular intervals and/or regular monitoring and reporting of pressure readings to safeguard the mechanical integrity of Class II wells will improve the Commission's ability to determine when system leaks exist that threaten contamination.

5. Salt water disposal pits (both lined and unlined) exist in great numbers in our state and are a source of contamination and a continuing threat to the quality of fresh ground water supplies.

(a) The material used for lined pits (polyethylene, rubber, plastic, etc.) is subject to shredding and deterioration by the wind and other elements; additionally, edges of the liner often become detached from the border of the pit allowing the wastes to flow between the liner and the ground.

(b) less than 1% (and probably 1/10 of 1%) of produced brine water is now placed in disposal pits; the rest is either reinjected into the formation or disposed of in the Gulf of Mexico.

(c) Salt water disposal pits are ordinarily closed without state supervision and are often improperly closed so that the salt contaminant comes in contact with porous ground and is permitted to become a source of contamination.

6. Fresh water should not be utilized for water flood (enhanced recovery) operations unless no other fluid is practicably available and then only with the permission of the agency having jurisdiction over Class II wells.

7. Wells that have been dormant, abandoned, shut in or plugged for at least twelve consecutive months should be tested for mechanical integrity before being placed in use again.

8. Many oil companies when conducting their operations have not been careful about protecting fresh water supplies.

9. With respect to the Mr. Clayton Smith complaint, the Texas Railroad Commission is at fault, because it failed to investigate thoroughly Mr. Smith's complaint as soon as the chloride levels indicated that the contamination was oil field-related.

Mr. Smith was seeking relief for his contamination problem; that should have been obvious to the Commission. In addition to identifying wells that "could" present a pollution hazard, the Commission should have done initially what it finally did; to-wit, (1) identify and take steps to have plugged the wells that were the suspected source of Mr. Smith's well's contamination and (2) identify a location for a new water well. If these logical actions had been pursued intially, the TDWR would not have been called upon to conduct two (2) investigations, Mr. Smith would not have been so frustrated, and the Governor and the Environmental Protection Agency would not have been contacted.

10. With respect to Mr. Jim Batte's complaint, the August 28, 1981 groundwater investigation report by the Railroad Commission of the contamination complaint by Jim Batte appears to be a thorough report with a logical conclusion. The Railroad Commission apparently spent a great deal of time and made a good faith effort in preparing this report. Since the time of the report, Mr. Batte has requested that additional wells in the area be tested. The Railroad Commission has been hesitant about testing of these wells, probably because the Railroad Commission employees believe (1) that they have made a good faith effort to determine the source of pollution for Mr. Batte, (2) that they have already correctly concluded (in their August 28, 1981 report) that the source of pollution is not the wells that Mr. Batte is complaining of but unlined disposal pits

that existed prior to 1966 and (3) that further testing would be futile. The Railroad Commission evidently also believes that nothing can be done about the pollution at this point in time. Accordingly, the Commission appears reluctant to become involved in any further investigation.

Mr. Batte, on the other hand, continues to experience contamination, is frustrated, and wants an exhaustive investigation of potential sources of contamination in the area, including pressure-testing of wells. The question appears to be: "How far must the Railroad Commission go in responding to contamination complaints?" In this particular instance where wells are old and at least one has a leak, the Committee believes the Commission should have had the wells suspected by Mr. Batte pressure-tested to be certain and to confirm for Mr. Batte (and for itself) that these wells are not sources of present pollution. The situation giving rise to Mr. Batte's complaint has evidently been exacerbated by poor diplomacy by some Railroad Commission personnel.

11. With respect to Mr. S. Gene Hall's complaint, the Committee finds that Gulf Oil Company has failed to take the necessary steps to insure a pollution safe operation on Mr. Hall's property, has chosen to dispute with Mr. Hall rather than attempt to cooperate with him, and has ignored at times Railroad Commission directives to maintain clean operations. Additionally, the Texas Railroad Commission seems to have been lax in this situation, failing to respond promptly to or ignoring Mr. Hall's complaints, failing to recognize the

threat arising from old and possibly deteriorated wells' being revived for use as disposal and injection wells and failing to enforce promptly its rules with respect to parafin pits. While Mr. Hall is evidently now receiving some satisfaction from the Texas Railroad Commission, the Committee believes the Commission would probably not have taken such action but for its being subjected to the scrutiny and pressure of our Committee investigation.

12. Although the Committee is impressed with statistics provided to it by the Texas Railroad Commission, detailing the number of investigations conducted by the Texas Railroad Commission and enforcement actions taken by the Texas Railroad Commission, the Committee also believes that the Commission's employees are selectively enforcing the rules and statutes in this area. Selective enforcement may be the result of relationships that have become too close between some Commission employees and industry representatives and/or a poor attitude toward consistent enforcement on behalf of some of the Commission's staff. We view selective enforcement as a very serious problem.

13. While many of the complainants urged the Committee to transfer the Texas Railroad Commission's water protection jurisdiction to the Texas Department of Water Resources, the Committee is reluctant to do so; neither the representatives of the Department nor the Commission thought such a transfer would be a good idea. Nor does the Committee believe that both the Department and the Commission should have joint authority over the subject matters. Joint authority would

result in both agencies' performing some of the same work; for much of the last decade the Legislature has strived to eliminate duplication of responsibilities among agencies and thereby reduce personnel and costs.

14. The Committee believes that one agency should have jurisdiction over both oil and gas production and the protection of fresh water supplies from oil and gas operations. If in the future the Railroad Commission demonstrates that it is unable or unwilling to perform both responsibilities in a satisfactory manner, both responsibilities should be transferred to an existing agency or a new agency, with the Railroad Commission continuing to have responsibility over certain modes of transportation, the matter for which it was originally created.

RECOMMENDATIONS

To the Railroad Commission

1. Protection of fresh water supplies from oil and gas operations should be stressed to Commission employees.

2. Commission personnel, especially those in District Offices who failed to respond adequately to the complaints detailed herein, should be reviewed to determine their attitude and willingness to enforce objectively and consistently the statutes and rules designed to protect the quality of ground water supplies.

3. Railroad Commission rules should be modified to require the mandatory retesting of the mechanical integrity

of all wells being brought back into service that have been abandoned, shut in, plugged, or not used for at least the prior twelve consecutive months together with all other wells whose mechanical integrity is suspected at any time by the Commission's staff.

To the 68th Legislature

1. Legislation should be enacted banning the use of salt water disposal pits except for usage of lined pits for temporary emergency collection; in this connection, specific provisions should be made (1) for expeditious cleaning of collection pits and (2) for establishment of minimum standards for type and weight of liners as well as for proper installation of liners.

2. Legislation should be enacted prohibiting the use of fresh water for injection for enhanced recovery purposes, unless the Railroad Commission determines that it is the only fluid practicably available for injection.

3. A continuing investigation of pollution of fresh water supplies from oil and gas operations should be assigned as an interim study to the Natural Resources Committee for the interim following the Regular Session of the 68th Legislature, with investigation of the Texas Railroad Commission's exercise of its jurisdiction over fresh water protection being a primary part of the investigation.